

Patent Claims

1. Insertion electrode device for installing a sensor probe in a container for a measuring medium, with the device comprising:

5 a probe housing configured for attachment to a container;

a probe protector tube to receive, hold and guide a sensor probe; and

a coupling for electrical connections of the sensor probe, wherein the probe

housing has a protective sleeve configured for connection to the probe protector tube to

protect the electrical coupling from mechanical stress and moisture, wherein when the

10 probe is installed, a safety adapter is coupled to an end of the probe protector tube which

is outside the container, and wherein the safety adapter engages a recess of the sensor

probe or reaches over a step of the sensor probe to secure the sensor probe against axial

movement.

15 2. Insertion electrode device according to claim 1, wherein the safety adapter secures the sensor probe from being inadvertently released from the probe protector tube.

3. Insertion electrode device according to claim 1, wherein the sensor probe has a probe header with a step that the safety adapter can bear against.

20 4. Insertion electrode device according to claim 3, wherein the probe header has an external screw thread, which allows the sensor probe to be screwed into an internal thread of the probe protector tube.

5. Insertion electrode device according to claim 1, wherein the coupling for the electrical leads is a plug connection, wherein a sleeve of one part of the plug connection can be screwed onto the other part of the plug connection.

5 6. Insertion electrode device according to claim 1, wherein the protective sleeve can be releasably fastened to the safety adapter.

7. Insertion electrode device according to claim 1, wherein the safety adapter has a ring-shaped collar to reach over the step or to reach into a recess of the sensor probe.

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8. Insertion electrode device according to claim 1, wherein the safety adapter has at least two projections to reach over the step or to reach into a recess of the sensor probe.

9. Insertion electrode device according to claim 1, wherein the safety adapter has at
15 least two pin-shaped spring elements to reach over the step or to reach into a recess of the sensor probe.

10. Insertion electrode device according to claim 1, wherein the safety adapter has a ring-shaped spring element to reach over the step or to reach into a recess of the sensor
20 probe.

11. Insertion electrode device according to claim 4, wherein the coupling for the electrical leads is a plug connection, wherein a sleeve of one part of the plug connection

can be screwed onto the other part of the plug connection.

12. Insertion electrode device according to claim 11, wherein the protective sleeve can be releasably fastened to the safety adapter.

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13. Insertion electrode device according to claim 12, wherein the safety adapter has a ring-shaped collar to reach over the step or to reach into a recess of the sensor probe.

14. Insertion electrode device according to claim 12, wherein the safety adapter has at
10 least two projections to reach over the step or to reach into a recess of the sensor probe.

15. Insertion electrode device according to claim 12, wherein the safety adapter has at least two pin-shaped spring elements to reach over the step or to reach into a recess of the sensor probe.

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16. Insertion electrode device according to claim 12, wherein the safety adapter has a ring-shaped spring element to reach over the step or to reach into a recess of the sensor probe.